FIGURE 1

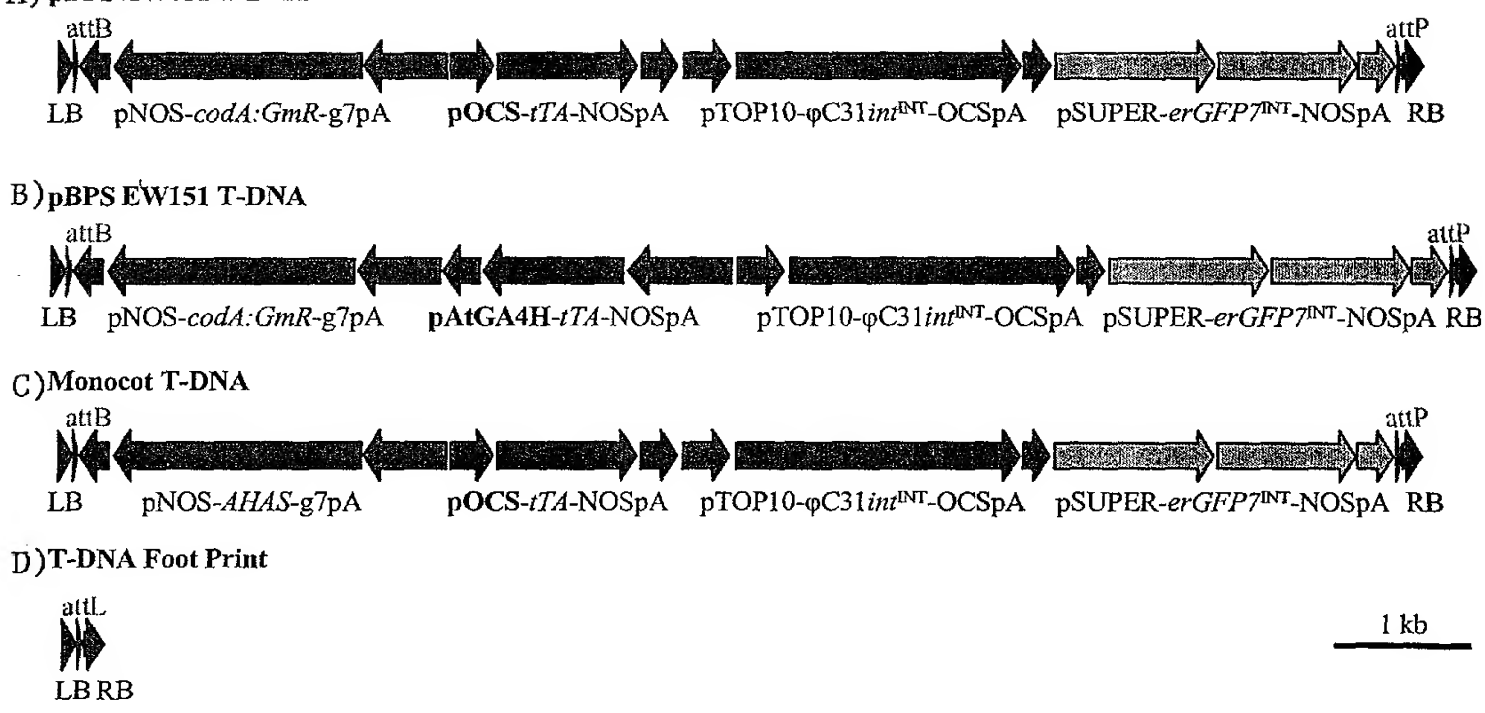
A) pBPS EW051 T-DNA
attB
attP
LB pNOS-codA:GmR-g7pA pOCS-tTA-NOSpA pTOP10-φC31intINT-OCSpA pSUPER-erGFP7INT-NOSpA RB
B) pBPS EW151 T-DNA
attB
attP
LB pNOS-codA:GmR-g7pA pAtGA4H-tTA-NOSpA pTOP10-φC31intINT-OCSpA pSUPER-erGFP7INT-NOSpA RB
C) Monocot T-DNA
attB
attP
LB pNOS-AHAS-g7pA pOCS-tTA-NOSpA pTOP10-φC31intINT-OCSpA pSUPER-erGFP7INT-NOSpA RB
D) T-DNA Foot Print
attL
LB RB
1 kb

FIGURE 2

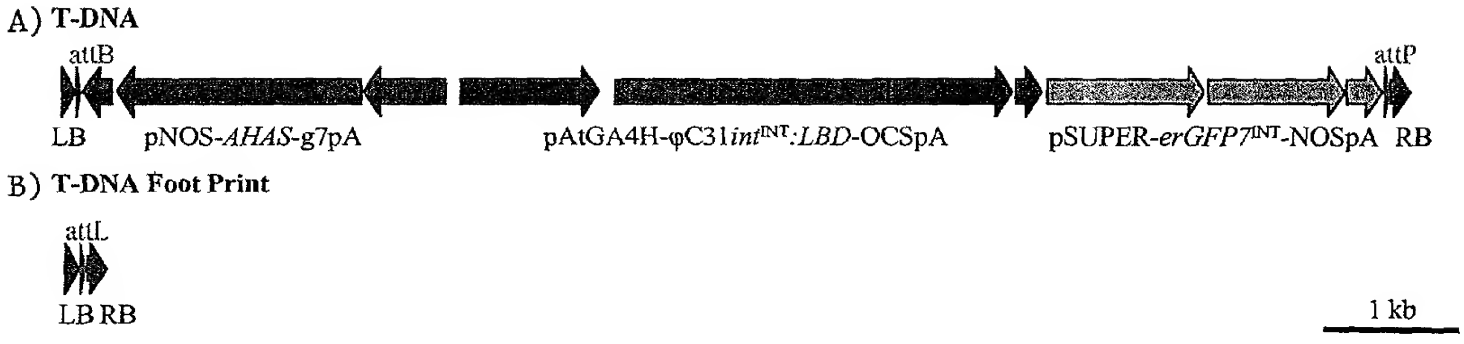
A) T-DNA
attB
attP
LB
pNOS-AHAS-g7pA
pAtGA4H-φC31int^INT:LBD-OCSpA
pSUPER-erGFP7^INT-NOSpA
RB
B) T-DNA Foot Print
attL
LB RB
1 kb

FIGURE 3

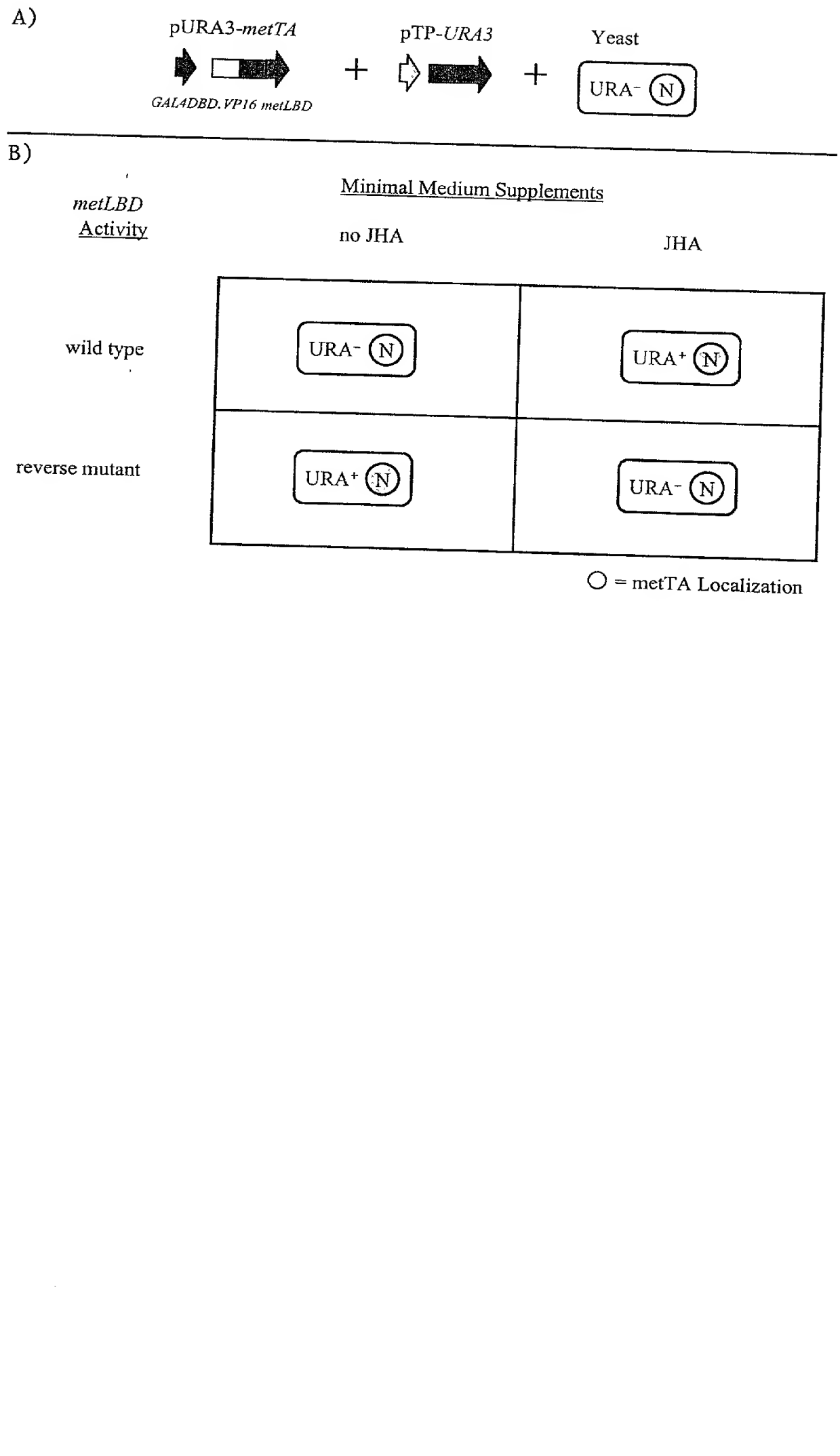
A)
pURA3-metTA
GAL4DBD.VP16 metLBD
pTP-URA3
Yeast
URA⁻ N
B)
metLBD Activity
Minimal Medium Supplements
no JHA
JHA
wild type
URA⁻ N
URA⁺ N
reverse mutant
URA⁺ N
URA⁻ N
○ = metTA Localization

FIGURE 4

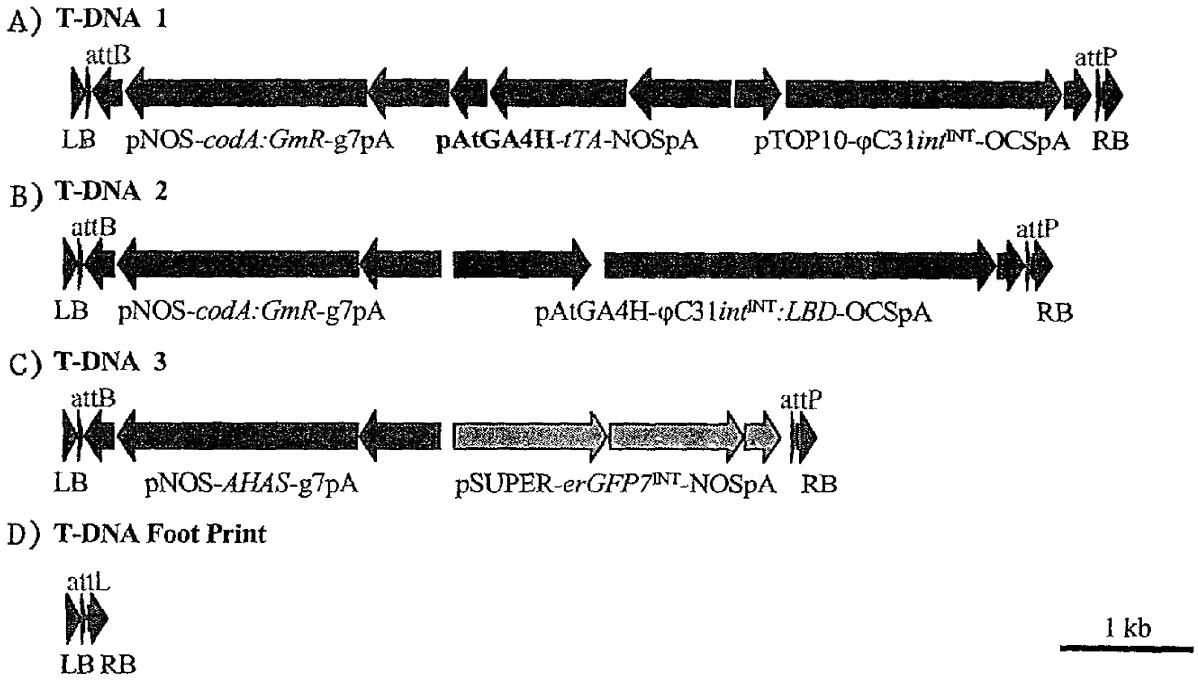

FIGURE 5

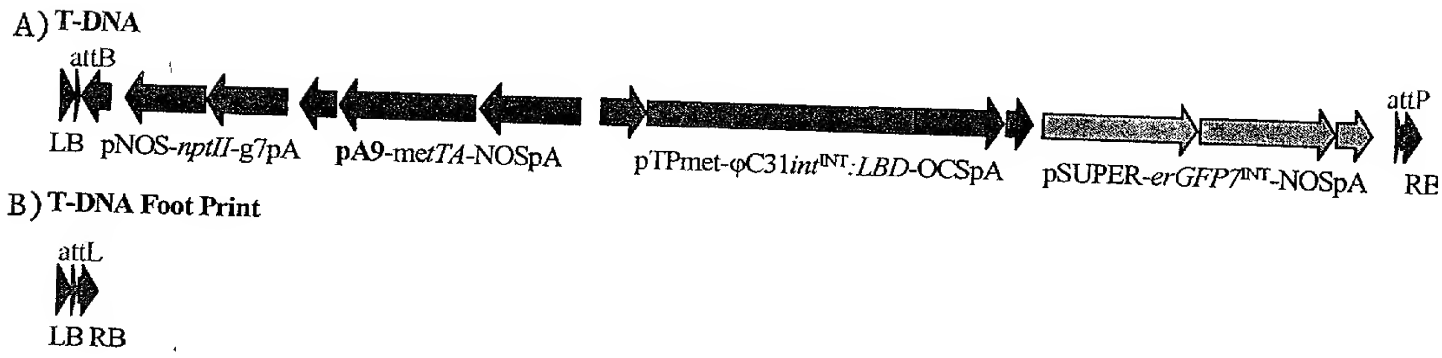
A) T-DNA
attB
LB pNOS-nptII-g7pA
pA9-metTA-NOSpA
pTPmet-φC31intINT:LBD-OCSpA
pSUPER-erGFP7INT-NOSpA
attP
RB
B) T-DNA Foot Print
attL
LB RB

FIGURE 6

Nucleotide sequence of φC31*int*^{INT}

```
   1 ATGGCACAAG GGGTTGTGAC CGGGGTGGAT ACGTAAGTTT CTGCTTCTAC CTTTGATATA
  61 TATATAATAA TTATCATTAA TTAGTAGTAA TATAATATTT CAAATATTTT TTTCAAAATA
 121 AAAGAATGTA GTATATAGCA ATTGCTTTTC TGTAGTTTAT AAGTGTGTAT ATTTTAATTT
 181 ATAACTTTTC TAATATATGA CCAAAATTTG TTGATGTGCA GGTACGCGGG TGCTTACGAC
 241 CGTCAGTCGC GCGAGCGCGA GAATTCGAGC GCAGCAAGCC CAGCGACACA GCGTAGCGCC
 301 AACGAAGACA AGGCGGCCGA CCTTCAGCGC GAAGTCGAGC GCGACGGGGG CCGGTTCAGG
 361 TTCGTCGGGC ATTTCAGCGA AGCGCCGGGC ACGTCGGCGT TCGGGACGGC GGAGCGCCCG
 421 GAGTTCGAAC GCATCCTGAA CGAATGCCGC GCCGGGCGGC TCAACATGAT CATTGTCTAT
 481 GACGTGTCGC GCTTCTCGCG CCTGAAGGTC ATGGACGCGA TTCCGATTGT CTCGGAATTG
 541 CTCGCCCTGG GCGTGACGAT TGTTTCCACT CAGGAAGGCG TCTTCCGGCA GGGAAACGTC
 601 ATGGACCTGA TTCACCTGAT TATGCGGCTC GACGCGTCGC ACAAAGAATC TTCGCTGAAG
 661 TCGGCGAAGA TTCTCGACAC GAAGAACCTT CAGCGCGAAT TGGGCGGGTA CGTCGGCGGG
 721 AAGGCGCCTT ACGGCTTCGA GCTTGTTTCG GAGACGAAGG AGATCACGCG CAACGGCCGA
 781 ATGGTCAATG TCGTCATCAA CAAGCTTGCG CACTCGACCA CTCCCCTTAC CGGACCCTTC
 841 GAGTTCGAGC CCGACGTAAT CCGGTGGTGG TGGCGTGAGA TCAAGACGCA CAAACACCTT
 901 CCCTTCAAGC CGGGCAGTCA AGCCGCCATT CACCCGGGCA GCATCACGGG GCTTTGTAAG
 961 CGCATGGACG CTGACGCCGT GCCGACCCGG GGCGAGACGA TTGGGAAGAA GACCGCTTCA
1021 AGCGCCTGGG ACCCGGCAAC CGTTATGCGA ATCCTTCGGG ACCCGCGTAT TGCGGGCTTC
1081 GCCGCTGAGG TGATCTACAA GAAGAAGCCG GACGGCACGC CGACCACGAA GATTGAGGGT
1141 TACCGCATTC AGCGCGACCC GATCACGCTC CGGCCGGTCG AGCTTGATTG CGGACCGATC
1201 ATCGAGCCCG CTGAGTGGTA TGAGCTTCAG GCGTGGTTGG ACGGCAGGGG GCGCGGCAAG
1261 GGGCTTTCCC GGGGGCAAGC CATTCTGTCC GCCATGGACA AGCTGTACTG CGAGTGTGGC
1321 GCCGTCATGA CTTCGAAGCG CGGGGAAGAA TCGATCAAGG ACTCTTACCG CTGCCGTCGC
1381 CGGAAGGTGG TCGACCCGTC CGCACCTGGG CAGCACGAAG GCACGTGCAA CGTCAGCATG
1441 GCGGCACTCG ACAAGTTCGT TGCGGAACGC ATCTTCAACA AGATCAGGCA CGCCGAAGGC
1501 GACGAAGAGA CGTTGGCGCT TCTGTGGGAA GCCGCCCGAC GCTTCGGCAA GCTCACTGAG
1561 GCGCCTGAGA AGAGCGGCGA ACGGGCGAAC CTTGTTGCGG AGCGCGCCGA CGCCCTGAAC
1621 GCCCTTGAAG AGCTGTACGA AGACCGCGCG GCAGGCGCGT ACGACGGACC CGTTGGCAGG
1681 AAGCACTTCC GGAAGCAACA GGCAGCGCTG ACGCTCCGGC AGCAAGGGGC GGAAGAGCGG
1741 CTTGCCGAAC TTGAAGCCGC CGAAGCCCCG AAGCTTCCCC TTGACCAATG GTTCCCCGAA
1801 GACGCCGACG CTGACCCGAC CGGCCCTAAG TCGTGGTGGG GGCGCGCGTC AGTAGACGAC
1861 AAGCGCGTGT TCGTCGGGCT CTTCGTAGAC AAGATCGTTG TCACGAAGTC GACTACGGGC
1921 AGGGGGCAGG GAACGCCCAT CGAGAAGCGC GCTTCGATCA CGTGGGCGAA GCCGCCGACC
1981 GACGACGACG AAGACGACGC CCAGGACGGC ACGGAAGACG TAGCGGCGTA G
```

FIGURE 7

Nucleotide sequence of φC31*int^{INT}**

```
   1 ATGGCACAAG GGGTTGTGAC CGGGGTGGAT ACGTAAGTTT CTGCTTCTAC CTTTGATATA
  61 TATATAATAA TTATCATTAA TTAGTAGTAA TATAATATTT CAAATATTTT TTTCAAAATA
 121 AAAGAATGTA GTATATAGCA ATTGCTTTTC TGTAGTTTAT AAGTGTGTAT ATTTTAATTT
 181 ATAACTTTTC TAATATATGA CCAAAATTTG TTGATGTGCA GGTACGCGGG TGCTTACGAC
 241 CGTCAGTCGC GCGAGCGCGA GAATAGCAGT GCAGCAAGCC CAGCGACACA GCGTAGCGCC
 301 AACGAAGACA AGGCGGCCGA CCTTCAGCGC GAAGTCGAGC GCGACGGGGG CCGGTTCAGG
 361 TTCGTCGGGC ATTTCAGCGA AGCGCCGGGC ACGTCGGCGT TCGGGACGGC GGAGCGCCCG
 421 GAGTTCGAAC GCATCCTGAA CGAATGCCGC GCCGGGCGGC TCAACATGAT CATTGTCTAT
 481 GACGTGTCGC GCTTCTCGCG CCTGAAGGTC ATGGACGCGA TTCCGATTGT CTCGGAATTG
 541 CTCGCCCTGG GCGTGACGAT TGTTTCCACT CAGGAAGGCG TCTTCCGGCA GGGAAACGTC
 601 ATGGACCTGA TTCACCTGAT TATGCGGCTC GACGCGTCGC ACAAAGAATC TTCGCTGAAG
 661 TCGGCGAAGA TTCTCGACAC GAAGAACCTT CAGCGCGAAT TGGGCGGGTA CGTCGGCGGG
 721 AAGGCGCCTT ACGGCTTCGA GCTTGTTTCG GAGACGAAGG AGATCACGCG CAACGGCCGA
 781 ATGGTCAATG TCGTCATCAA CAAGTTAGCG CACTCGACCA CTCCCCTTAC CGGACCCTTC
 841 GAGTTCGAGC CCGACGTAAT CCGGTGGTGG TGGCGTGAGA TCAAGACGCA CAAACACCTT
 901 CCCTTCAAGC CGGGCAGTCA AGCCGCCATT CACCCGGGCA GCATCACGGG GCTTTGTAAG
 961 CGCATGGACG CTGACGCCGT GCCGACCCGG GGCGAGACGA TTGGGAAGAA GACCGCTTCA
1021 AGCGCCTGGG ACCCGGCAAC CGTTATGCGA ATCCTTCGGG ACCCGCGTAT TGCGGGCTTC
1081 GCCGCTGAGG TGATCTACAA GAAGAAGCCG GACGGCACGC CGACCACGAA GATTGAGGGT
1141 TACCGCATTC AGCGCGACCC GATCACGCTC CGGCCGGTCG AGCTTGATTG CGGACCGATC
1201 ATCGAGCCCG CTGAGTGGTA TGAGCTTCAG GCGTGGTTGG ACGGCAGGGG GCGCGGCAAG
1261 GGGCTTTCCC GGGGGCAAGC CATTCTGTCC GCCATGGACA AGCTGTACTG CGAGTGTGGC
1321 GCCGTCATGA CTTCGAAGCG CGGGGAAGAA TCGATCAAGG ACTCTTACCG CTGCCGTCGC
1381 CGGAAGGTGG TCGACCCGTC CGCACCTGGG CAGCACGAAG GCACGTGCAA CGTCAGCATG
1441 GCGGCACTCG ACAAGTTCGT TGCGGAACGC ATCTTCAACA AGATCAGGCA CGCCGAAGGC
1501 GACGAAGAGA CGTTGGCGCT TCTGTGGGAA GCCGCCCGAC GCTTCGGCAA GCTCACTGAG
1561 GCGCCTGAGA AGAGCGGCGA ACGGGCGAAC CTTGTTGCGG AGCGCGCCGA CGCCCTGAAC
1621 GCCCTTGAAG AGCTGTACGA AGACCGCGCG GCAGGAGCTT ACGACGGACC CGTTGGCAGG
1681 AAGCACTTCC GGAAGCAACA GGCAGCGCTG ACGCTCCGGC AGCAAGGGGC GGAAGAGCGG
1741 CTTGCCGAAC TTGAAGCCGC CGAAGCCCCG AAGTTGCCCC TTGACCAATG GTTCCCCGAA
1801 GACGCCGACG CTGACCCGAC CGGCCCTAAG TCGTGGTGGG GGCGCGCGTC AGTAGACGAC
1861 AAGCGCGTGT TCGTCGGGCT CTTCGTAGAC AAGATCGTTG TCACGAAGTC GACTACGGGC
1921 AGGGGGCAGG GAACGCCCAT CGAGAAGCGC GCTTCGATCA CGTGGGCGAA GCCGCCGACC
1981 GACGACGACG AAGACGACGC CCAGGACGGC ACGGAAGACG TAGCGGCGTA G
```

FIGURE 8

Nucleotide sequence of pBPS EW051 T-DNA Region

Sequence Molecule Features:

Start	End	Name
3	217	Left T-DNA Border
225	259	attB
485	273	g7pA (terminator)
2288	519	*codA-aacCI* translational fusion gene
2898	2303	Nopaline Synthase Promoter
2925	3236	Octopine Synthase Promoter
3260	4267	tTA gene
4292	4558	Nopaline Synthase Terminator
4597	4933	Top10 promoter
4977	7007	φC31*int*^{INT} gene
7027	7221	Octopine Synthase Terminator
7253	8392	Super Promoter
8413	9405	*erGFP7*^{INT} gene
9411	9677	Nopaline Synthase Terminator
9690	9728	attP
9735	9880	Right T-DNA Border

Sequence:

```
   1 TGGTGATTTT GTGCCGAGCT GCCGGTCGGG GAGCTGTTGG CTGGCTGGTG GCAGGATATA
  61 TTGTGGTGTA AACAAATTGA CGCTTAGACA ACTTAATAAC ACATTGCGGA CGTCTTTAAT
 121 GTACTGAATT AACATCCGTT TGATACTTGT CTAAAATTGG CTGATTTCGA GTGCATCTAT
 181 GCATAAAAAC AATCTAATGA CAATTATTAC CAAGCAGGAT CACCGGTGCC AGGGCGTGCC
 241 CTTGGGCTCC CCGGGCGCGG CCCGGGCAAT TCCCATCTTG AAAGAAATAT AGTTTAAATA
 301 TTTATTGATA AAATAAGTCA GGTATTATAG TCCAAGCAAA AACATAATTT ATTGATGCAA
 361 AGTTTAAATT CAGAAATATT TCAATAACTG ATTATATCAG CTGGTACATT GCCGTAGATG
 421 AAAGACTGAG TGCGATATTA TGTGTAATAC ATAAATTGAT GATATAGCTA GCTTAGCTCA
 481 TCGGGGGATC CTTAATCGAC TCTAGCTAGA ACGAATTGTT AGGTGGCGGT ACTTGGGTCG
 541 ATATCAAAGT GCATCACTTC TTCCCGTATG CCCAACTTTG TATAGAGAGC CACTGCGGGA
 601 TCGTCACCGT AATCTGCTTG CACGTAGATC ACATAAGCAC CAAGCGCGTT GGCCTCATGC
 661 TTGAGGAGAT TGATGAGCGC GGTGGCAATG CCCTGCCTCC GGTGCTCGCC GGAGACTGCG
 721 AGATCATAGA TATAGATCTC ACTACGCGGC TGCTCAAACC TGGGCAGAAC GTAAGCCGCG
 781 AGAGCGCCAA CAACCGCTTC TTGGTCGAAG GCAGCAAGCG CGATGAATGT CTTACTACGG
 841 AGCAAGTTCC CGAGGTAATC GGAGTCCGGC TGATGTTGGG AGTAGGTGGC TACGTCTCCG
 901 AACTCACGAC CGAAAAGATC AAGAGCAGCC CGCATGGATT TGACTTGGTC AGGGCCGAGC
 961 CTACATGTGC GAATGATGCC CATCCTCGAG AAACGTTTGT AATCGATGGC TTCTGGCTGC
1021 TCCAGATATA CGGTGGTTTG TGCCGGTTGT GTGCTGGCAA TCACCTTGCC GCCACGTACC
1081 GAATAACGTA CCGGAACCTG ACGGCGCAGC GCATCAAACC CATTTTCAGC CGGCAGGATA
1141 ATCAGGTTGG CGCTGTTTCC GGCGGCAATG CCGTAATCCT GCAAATTCAA CGTCCTTGCG
1201 CTGTGGTGGG TGATTAAATT CAGGCCATCG TTAATCTGCC CGTAGCCCAT CAACTGGCAA
1261 ACATGCAGCC CCATATGCAG CACTTGCAGC ATATTCGCCG TTCCCAGCGG ATACCACGGA
1321 TCGAAGACAT CATCGTGACC AAAGCAGACG TTAATGCCGG ACTCCAGCAT CTCTTTAACG
1381 CGCGTGATGC CGCGACGTTT TGGATACGTA TCGAAACGTC CTTGCAGATG AATATTGACC
1441 AGCGGGTTGG CGACAAAGTT AATACCGGAC ATTTTCAGCA AGCGGAACAG GCGTGAGGTA
1501 TACGCCCCGT TATAGGAGTG CATTGCCGTG GTGTGGCTGG CGGTGACTCG CGCGCCCATG
1561 CCTTCATGGT GCGCCAGGGC AGCAACGGTT TCGACAAAGC GCGACTGCTC GTCATCGATC
1621 TCATCACAGT GAACGTCGAT GAGACGGTCG TATTTTTGCG CCAGGGCGAA GGTTTTATGC
1681 AGCGACTCCA CGCCGTATTC ACGGGTAAAT TCAAAATGCG GAATCGCCCC CACTACATCT
1741 GCCCCTAAGC GTAACGCCTC TTCCAGCAAC GCTTCACCGT TGGGATACGA CAAAATCCCT
1801 TCCTGAGGGA AGGCGACGAT TTGCAGATCA ATCCACGGCG CGACTTCCTG CTTCACTTCC
1861 AGCATTGCTT TCAGCGCAGT TAGCGTTGCA TCCGAAACAT CGACATGGGT ACGCACATGC
1921 TGAATGCCGT TGGCAATCTG CCATTTCAGC GTTTGCCATG CGCGTTGTTT CACATCGTCA
```

FIGURE 8 CONTINUED

1981 TGGGTTAATA ACGCTTTGCG CTCGGCCCAG CGTTCAATGC CTTCAAACAG CGTGCCGGAC
2041 TGATTCCAGT TCGGTTGTCC GGCGGTTTGC GTGGTGTCCA GGTGAATATG TGGCTCCACA
2101 AACGGCGGTA TAACTAAACC TTGTTCGGCA TCCAGGCTGT TTTCAGTTAT GGGCATCACG
2161 CCGGATTGCG CATCAATGGC GCTGATTTTT CCGTCCTGCA GATGAATCTG CCACAGCCCC
2221 TCTTCGCCTG GTAACCGGGC GTTAATAATT GTTTGTAAAG CGTTATTCGA CACTGTTAGC
2281 CTCCCCATGG AGATCTGGAT TGAGAGTGAA TATGAGACTC TAATTGGATA CCGAGGGGAA
2341 TTTATGGAAG TCAGTGGAGC ATTTTTGACA AGAAATATTT GCTAGCTGAT AGTGACCTTA
2401 GGCGACTTTT GAACGCGCAA TAATGGTTTC TGACGTATGT GCTTAGCTCA TTAAACTCCA
2461 GAAACCCGCG GCTGAGTGGC TCCTTCAACG TTGCGGTTCT GTCAGTTCCA AACGTAAAAC
2521 GGCTTGTCCC GCGTCATCGG CGGGGGTCAT AACGTGACTC CCTTAATTCT CCGCTCATGA
2581 TCTTGATCCC CTGCGCCATC AGATCCTTGG CGGCAAGAAA GCCATCCAGT TTACTTTGCA
2641 GGGCTTCCCA ACCTTACCAG AGGGCGCCCC AGCTGGCAAT TCCGGTTCGC TTGCTGTCCA
2701 TAAAACCGCC CAGTCTAGCT ATCGCCATGT AAGCCCACTG CAAGCTACCT GCTTTCTCTT
2761 TGCGCTTGCG TTTTCCCTTG TCCAGATAGC CCAGTAGCTG ACATTCATCC GGGGTCAGCA
2821 CCGTTTCTGC GGACTGGCTT TCTACGTGTT CCGCTTCCTT TAGCAGCCCT TGCGCCCTGA
2881 GTGCTTGCGG CAGCGTGAAG CTTGGCGCGC CAAGCTTGCA TGCCCGCTCT TAGCCGTACA
2941 ATATTACTCA CCGGTGCGAT GCCCCCCATC GTAGGTGAAG GTGGAAATTA ATGATCCATC
3001 TTGAGACCAC AGGCCCACAA CAGCTACCAG TTTCCTCAAG GGTCCACCAA AAACGTAAGC
3061 GCTTACGTAC ATGGTCGATA AGAAAAGGCA ATTTGTAGAT GTTAACATCC AACGTCGCTT
3121 TCAGGGATCC TTTTTACCGA CAACTCATCC ACATTGATGG TAGGCAGAAA GTTAAAGGAT
3181 TATCGCAAGT CAATACTTGC CCATTCATTG ATCTATTTAA AGGTGTGGCC TCAAGGAGAT
3241 CCCCGGGCCG GCAATTCATA TGTCTAGATT AGATAAAAGT AAAGTGATTA ACAGCGCATT
3301 AGAGCTGCTT AATGAGGTCG GAATCGAAGG TTTAACAACC CGTAAACTCG CCCAGAAGCT
3361 AGGTGTAGAG CAGCCTACAT TGTATTGGCA TGTAAAAAAT AAGCGGGCTT TGCTCGACGC
3421 CTTAGCCATT GAGATGTTAG ATAGGCACCA TACTCACTTT TGCCCTTTAG AAGGGGAAAG
3481 CTGGCAAGAT TTTTTACGTA ATAACGCTAA AAGTTTTAGA TGTGCTTTAC TAAGTCATCG
3541 CGATGGAGCA AAAGTACATT TAGGTACACG GCCTACAGAA AAACAGTATG AAACTCTCGA
3601 AAATCAATTA GCCTTTTTAT GCCAACAAGG TTTTTCACTA GAGAATGCAT TATATGCACT
3661 CAGCGCTGTG GGGCATTTTA CTTTAGGTTG CGTATTGGAA GATCAAGAGC ATCAAGTCGC
3721 TAAAGAAGAA AGGGAAACAC CTACTACTGA TAGTATGCCG CCATTATTAC GACAAGCTAT
3781 CGAATTATTT GATCACCAAG GTGCAGAGCC AGCCTTCTTA TTCGGCCTTG AATTGATCAT
3841 ATGCGGATTA GAAAAACAAC TTAAATGTGA AAGTGGGTCC GCGTACAGCC GCGCGCGTAC
3901 GAAAAACAAT TACGGGTCTA CCATCGAGGG CCTGCTCGAT CTCCCGGACG ACGACGCCCC
3961 CGAAGAGGCG GGGCTGGCGG CTCCGCGCCT GTCCTTTCTC CCCGCGGGAC ACACGCGCAG
4021 ACTGTCGACG GCCCCCCCGA CCGATGTCAG CCTGGGGGAC GAGCTCCACT TAGACGGCGA
4081 GGACGTGGCG ATGGCGCATG CCGACGCGCT AGACGATTTC GATCTGGACA TGTTGGGGGA
4141 CGGGGATTCC CCGGGTCCGG GATTTACCCC CCACGACTCC GCCCCCTACG GCGCTCTGGA
4201 TATGGCCGAC TTCGAGTTTG AGCAGATGTT TACCGATGCC CTTGGAATTG ACGAGTACGG
4261 TGGGTAGGGG GCGCGAGGAT CTCGAGCAGC TCGAATTTCC CCGATCGTTC AAACATTTGG
4321 CAATAAAGTT TCTTAAGATT GAATCCTGTT GCCGGTCTTG CGATGATTAT CATATAATTT
4381 CTGTTGAATT ACGTTAAGCA TGTAATAATT AACATGTAAT GCATGACGTT ATTTATGAGA
4441 TGGGTTTTTA TGATTAGAGT CCCGCAATTA TACATTTAAT ACGCGATAGA AAACAAAATA
4501 TAGCGCGCAA ACTAGGATAA ATTATCGCGC GCGGTGTCAT CTATGTTACT AGATCGGGAA
4561 TTCCTTAATT AAGAATTCGA GCTCGGTACC GAGCTCGACT TTCACTTTTC TCTATCACTG
4621 ATAGGGAGTG GTAAACTCGA CTTTCATTTT CTCTATCACT GATAGGGAGT GGTAAACTCG
4681 ACTTTCACTT TTCTCTATCA CTGATAGGGA GTGGTAAACT CGACTTTCAC TTTTCTCTAT
4741 CACGGATAGG GAGTGGTAAA CTCGACTTTC ACTTTTCTCT ATCACTGATA GGGAGTGGTA
4801 AACTCGACTT TCACTTTTCT CTATCACTGA TAGGGAGTGG TAAACTCGAC TTTCACTTTT
4861 CTCTATCACT GATAGGGAGT GGTAAACTCG AGATAGAGTG ATCTAGTCTT CGCAAGACCC
4921 TTTACGTATA TAAGGCCTTT CTAGACATTT GCTCGAGCCC GGGGATCCAT ATGGCCATGG
4981 CACAAGGGGT TGTGACCGGG GTGGATACGT AAGTTTCTGC TTCTACCTTT GATATATATA
5041 TAATAATTAT CATTAATTAG TAGTAATATA ATATTTCAAA TATTTTTTTC AAAATAAAAG
5101 AATGTAGTAT ATAGCAATTG CTTTTCTGTA GTTTATAAGT GTGTATATTT TAATTTATAA
5161 CTTTTCTAAT ATATGACCAA AATTTGTTGA TGTGCAGGTA CGCGGGTGCT TACGACCGTC

FIGURE 8 CONTINUED

5221 AGTCGCGCGA GCGCGAGAAT TCGAGCGCAG CAAGCCCAGC GACACAGCGT AGCGCCAACG
5281 AAGACAAGGC GGCCGACCTT CAGCGCGAAG TCGAGCGCGA CGGGGGCCGG TTCAGGTTCG
5341 TCGGGCATTT CAGCGAAGCG CCGGGCACGT CGGCGTTCGG GACGGCGGAG CGCCCGGAGT
5401 TCGAACGCAT CCTGAACGAA TGCCGCGCCG GGCGGCTCAA CATGATCATT GTCTATGACG
5461 TGTCGCGCTT CTCGCGCCTG AAGGTCATGG ACGCGATTCC GATTGTCTCG GAATTGCTCG
5521 CCCTGGGCGT GACGATTGTT TCCACTCAGG AAGGCGTCTT CCGGCAGGGA AACGTCATGG
5581 ACCTGATTCA CCTGATTATG CGGCTCGACG CGTCGCACAA AGAATCTTCG CTGAAGTCGG
5641 CGAAGATTCT CGACACGAAG AACCTTCAGC GCGAATTGGG CGGGTACGTC GGCGGGAAGG
5701 CGCCTTACGG CTTCGAGCTT GTTTCGGAGA CGAAGGAGAT CACGCGCAAC GGCCGAATGG
5761 TCAATGTCGT CATCAACAAG CTTGCGCACT CGACCACTCC CCTTACCGGA CCCTTCGAGT
5821 TCGAGCCCGA CGTAATCCGG TGGTGGTGGC GTGAGATCAA GACGCACAAA CACCTTCCCT
5881 TCAAGCCGGG CAGTCAAGCC GCCATTCACC CGGGCAGCAT CACGGGGCTT TGTAAGCGCA
5941 TGGACGCTGA CGCCGTGCCG ACCCGGGGCG AGACGATTGG GAAGAAGACC GCTTCAAGCG
6001 CCTGGGACCC GGCAACCGTT ATGCGAATCC TTCGGGACCC GCGTATTGCG GGCTTCGCCG
6061 CTGAGGTGAT CTACAAGAAG AAGCCGGACG GCACGCCGAC CACGAAGATT GAGGGTTACC
6121 GCATTCAGCG CGACCCGATC ACGCTCCGGC CGGTCGAGCT TGATTGCGGA CCGATCATCG
6181 AGCCCGCTGA GTGGTATGAG CTTCAGGCGT GGTTGGACGG CAGGGGGCGC GGCAAGGGGC
6241 TTTCCCGGGG GCAAGCCATT CTGTCCGCCA TGGACAAGCT GTACTGCGAG TGTGGCGCCG
6301 TCATGACTTC GAAGCGCGGG GAAGAATCGA TCAAGGACTC TTACCGCTGC CGTCGCCGGA
6361 AGGTGGTCGA CCCGTCCGCA CCTGGGCAGC ACGAAGGCAC GTGCAACGTC AGCATGGCGG
6421 CACTCGACAA GTTCGTTGCG GAACGCATCT TCAACAAGAT CAGGCACGCC GAAGGCGACG
6481 AAGAGACGTT GGCGCTTCTG TGGGAAGCCG CCCGACGCTT CGGCAAGCTC ACTGAGGCGC
6541 CTGAGAAGAG CGGCGAACGG GCGAACCTTG TTGCGGAGCG CGCCGACGCC CTGAACGCCC
6601 TTGAAGAGCT GTACGAAGAC CGCGCGGCAG GCGCGTACGA CGGACCCGTT GGCAGGAAGC
6661 ACTTCCGGAA GCAACAGGCA GCGCTGACGC TCCGGCAGCA AGGGGCGGAA GAGCGGCTTG
6721 CCGAACTTGA AGCCGCCGAA GCCCCGAAGC TTCCCCTTGA CCAATGGTTC CCCGAAGACG
6781 CCGACGCTGA CCCGACCGGC CCTAAGTCGT GGTGGGGGCG CGCGTCAGTA GACGACAAGC
6841 GCGTGTTCGT CGGGCTCTTC GTAGACAAGA TCGTTGTCAC GAAGTCGACT ACGGGCAGGG
6901 GGCAGGGAAC GCCCATCGAG AAGCGCGCTT CGATCACGTG GGCGAAGCCG CCGACCGACG
6961 ACGACGAAGA CGACGCCCAG GACGGCACGG AAGACGTAGC GGCGTAGCTG CAGCTCGACG
7021 CATGCCCTGC TTTAATGAGA TATGCGAGAC GCCTATGATC GCATGATATT TGCTTTCAAT
7081 TCTGTTGTGC ACGTTGTAAA AAACCTGAGC ATGTGTAGCT CAGATCCTTA CCGCCGGTTT
7141 CGGTTCATTC TAATGAATAT ATCACCCGTT ACTATCGTAT TTTTATGAAT AATATTCTCC
7201 GTTCAATTTA CTGATTGTCC AAGCTTCCTG CAGGAAGCTT TGGGCGGATC CTCTAGATTC
7261 GACGGTATCG ATAAGCTCGC GGATCCCTGA AAGCGACGTT GGATGTTAAC ATCTACAAAT
7321 TGCCTTTTCT TATCGACCAT GTACGTAAGC GCTTACGTTT TTGGTGGACC CTTGAGGAAA
7381 CTGGTAGCTG TTGTGGGCCT GTGGTCTCAA GATGGATCAT TAATTTCCAC CTTCACCTAC
7441 GATGGGGGGC ATCGCACCGG TGAGTAATAT TGTACGGCTA AGAGCGAATT TGGCCTGTAG
7501 GATCCCTGAA AGCGACGTTG GATGTTAACA TCTACAAATT GCCTTTTCTT ATCGACCATG
7561 TACGTAAGCG CTTACGTTTT TGGTGGACCC TTGAGGAAAC TGGTAGCTGT TGTGGGCCTG
7621 TGGTCTCAAG ATGGATCATT AATTTCCACC TTCACCTACG ATGGGGGGCA TCGCACCGGT
7681 GAGTAATATT GTACGGCTAA GAGCGAATTT GGCCTGTAGG ATCCCTGAAA GCGACGTTGG
7741 ATGTTAACAT CTACAAATTG CCTTTTCTTA TCGACCATGT ACGTAAGCGC TTACGTTTTT
7801 GGTGGACCCT TGAGGAAACT GGTAGCTGTT GTGGGCCTGT GGTCTCAAGA TGGATCATTA
7861 ATTTCCACCT TCACCTACGA TGGGGGGCAT CGCACCGGTG AGTAATATTG TACGGCTAAG
7921 AGCGAATTTG GCCTGTAGGA TCCGCGAGCT GGTCAATCCC ATTGCTTTTG AAGCAGCTCA
7981 ACATTGATCT CTTTCTCGAT CGAGGGAGAT TTTTCAAATC AGTGCGCAAG ACGTGACGTA
8041 AGTATCCGAG TCAGTTTTTA TTTTTCTACT AATTTGGTCG TTTATTTCGG CGTGTAGGAC
8101 ATGGCAACCG GGCCTGAATT TCGCGGGTAT TCTGTTTCTA TTCCAACTTT TTCTTGATCC
8161 GCAGCCATTA ACGACTTTTG AATAGATACG CTGACACGCC AAGCCTCGCT AGTCAAAAGT
8221 GTACCAAACA ACGCTTTACA GCAAGAACGG AATGCGCGTG ACGCTCGCGG TGACGCCATT
8281 TCGCCTTTTC AGAAATGGAT AAATAGCCTT GCTTCCTATT ATATCTTCCC AAATTACCAA
8341 TACATTACAC TAGCATCTGA ATTTCATAAC CAATCTCGAT ACACCAAATC GAAGATCCAA
8401 GGAGATATAA CAATGAAGAC TAATCTTTTT CTCTTTCTCA TCTTTTCACT TCTCCTATCA

FIGURE 8 CONTINUED

8461 TTATCCTCGG CCGAATTGTA CGTAAGTTTC TGCTTCTACC TTTGATATAT ATATAATAAT
8521 TATCATTAAT TAGTAGTAAT ATAATATTTC AAATATTTTT TTCAAAATAA AAGAATGTAG
8581 TATATAGCAA TTGCTTTTCT GTAGTTTATA AGTGTGTATA TTTTAATTTA TAACTTTTCT
8641 AATATATGAC CAAAATTTGT TGATGTGCAG GTACAATTCA GTAAAGGAGA AGAACTTTTC
8701 ACTGGAGTTG TCCCAATTCT TGTTGAATTA GATGGTGATG TTAATGGGCA CAAATTTTCT
8761 GTCAGTGGAG AGGGTGAAGG TGATGCAACA TACGGAAAAC TTACCCTTAA ATTTATTTGC
8821 ACTACTGGAA AACTACCTGT TCCATGGCCA ACACTTGTCA CTACTTTCAC TTATGGTGTT
8881 CAATGCTTTT CAAGATACCC AGATCATATG AAGCGGCACG ACTTCTTCAA GAGCGCCATG
8941 CCTGAGGGAT ACGTGCAGGA GAGGACCATC TCTTTCAAGG ACGACGGGAA CTACAAGACA
9001 CGTGCTGAAG TCAAGTTTGA GGGAGACACC CTCGTCAACA GGATCGAGCT TAAGGGAATC
9061 GATTTCAAGG AGGACGGAAA CATCCTCGGC CACAAGTTGG AATACAACTA CAACTCCCAC
9121 AACGTATACA TCACGGCAGA CAAACAAAAG AATGGAATCA AAGCTAACTT CAAAATTAGA
9181 CACAACATTG AAGATGGAAG CGTTCAACTA GCAGACCATT ATCAACAAAA TACTCCAATT
9241 GGCGATGGCC CTGTCCTTTT ACCAGACAAC CATTACCTGT CCACACAATC TGCCCTTTCG
9301 AAAGATCCCA ACGAAAAGAG AGACCACATG GTCCTTCTTG AGTTTGTAAC AGCTGCTGGG
9361 ATTACACATG GCATGGATGA ACTATACAAA CATGATGAGC TTTAAGAGCT CGAATTTCCC
9421 CGATCGTTCA AACATTTGGC AATAAAGTTT CTTAAGATTG AATCCTGTTG CCGGTCTTGC
9481 GATGATTATC ATATAATTTC TGTTGAATTA CGTTAAGCAT GTAATAATTA ACATGTAATG
9541 CATGACGTTA TTTATGAGAT GGGTTTTTAT GATTAGAGTC CCGCAATTAT ACATTTAATA
9601 CGCGATAGAA AACAAAATAT AGCGCGCAAA CTAGGATAAA TTATCGCGCG CGGTGTCATC
9661 TATGTTACTA GATCGGGAAT TCGCGATCGC CCCAACTGGG GTAACCTTTG AGTTCTCTCA
9721 GTTGGGGGAG ATCTGATTGT CGTTTCCCGC CTTCAGTTTA AACTATCAGT GTTTGACAGG
9781 ATATATTGGC GGGTAAACCT AAGAGAAAAG AGCGTTTATT AGAATAATCG GATATTTAAA
9841 AGGGCGTGAA AAGGTTTATC CGTTCGTCCA TTTGTATGTC

FIGURE 9

Nucleotide sequence of *Arabidopsis thaliana GA4H* promoter region

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   1 TGTAAATGAT AGGGATTGAA ACATCATCCT ATCGTTGACC AAAAATTTCA CTGCGTGCTA
  61 TATAAAATAC TATATATGTT ACCCTTTAAC TGATGAAAAT GTAAAGAGAC AAGGCAGCAC
 121 CGTTTATCAT CAGACCAGTT TCGAGAGTGT TCCTGCATCG TTGGGCTCCC TCCTCAATTT
 181 TGTCTACGTG ATTATATATC ATATCGTCTA CAAACAAAAT AAATACAATT CTATCATATG
 241 AATATGTGAT CATCGATGAT CGATCAATAT ATGTTTTCGA GGTGACGTAT ATAGTATATT
 301 TCCGTAGAGA CGGCGAAGAA CATGATATCT CTGCATGCCT CCAATCAAAT CTTTACACTT
 361 CATCCTTCTT CGTTACTTGT TCAGTTGTTC CTTTCTAATC CCGACAACCC TTAATTTGTA
 421 TTTCTATATT AGATCGAAAT ATCTCATTTG TGATAAATAA AATAAAAAAA ATCAAAGAAA
 481 GCTATAGAGA AGCTGCGTGC ATGCATGGGT TGGCGATGTT TGGCTTGTTA TGTTTGGCTT
 541 GTTATGTGGC ATTATCTGTA TGTATATTAC CCTAAATCAC ATCTACGACA TTTCCCTCGA
 601 TCTTCAAAAT ATGCCAGCAA TCTTCATGTT TCCTCATATC TCTTAACATT GGAAAATGTC
 661 TTTTGACCTC TTTTGATGTA TTTTAAATTA CTTCGAGCTC ATCTATATTA CAAATCATTC
 721 ATGGTGAATT ATTGTCCAGC CAATAGAATA GAAATCTGAA TATAATGTGT ACCACATCTT
 781 TTATGTAATT TATACGATAT TCTTTTTCCT GAGAATGATC AAATAACAAC ATGCATGAAT
 841 TGCTGCCAGA AAACGTCAGA TTGATCAGTT ATCACTACAA TTATCAATTA ACTAGTAAAT
 901 AGTATCAAAA TGTACGTAGT GCCCATCTAT AGCTAGCTAA GGAGGACTCC GGATGTAGAG
 961 AAAAGCTAAA ATGTGACTTG CTAGAGTTGT ATTATATTGA ATTTTCTAAA CTAATAGTAT
1021 CTTTTTTACA GATAATAATT TCCGGAAAAC CTATTAGATG TATAGATATA ACAATAAGCA
1081 TCGATACCAA CCTTTTACTT CCAAAAAAAA ATAAAAAAAA AATGCCAAGA TGAGATAATT
1141 TTGTCAATTT CAATTAGTGG GAAAATAACA ATTGTCGTGT TATTTTTGAA CCAACGCATC
1201 TCAGTGAATG ATTTCCCAGT TCTTAAGATT TTAGGACATA CTTTCCCAGT AACATCTAAT
1261 CCGTTTGGGC ATAAACAAGA CAATTTGTAG TTATGTACAT TTCTTAGTGA TGTGTGTTGA
1321 AAAGATATGA ATCAATGAGG TCCGACATAT TTTGTCAATA CGTTAGTGGT GTTTCAAAAT
1381 AAATTTTTAG TATATATATT AAAATAAGAC CAAAGGATAG GCTTTAGTGG TGTTTCAGGT
1441 ATAGTTTTAA TAATCAATTC AAAATAAGTC GAAAGGATAT GTAAGATAGG CGTTATTTCA
1501 ACGTGGATCA TTATCAACCA TGTCAAAAAC GCATTTCAAC TCCTAGATGT GTTGTTAGTT
1561 ATATATGTTC CAAATGGAAT CGACCCAACA GAAAAAGAGA AAAAAACGTA AAAGGTTATG
1621 CGATTCCAGG GACGTCTCAT ATATATATAT ATTCCGATGA AATATAAATA TAATTATCGT
1681 GGTCTGTGAC AATAAATATG GAAATAGATG TGGAAATCAT GATCATGTGA AGAAGAAGAA
1741 GAACACGTGC AGATGAACTG CAAATGATAA TAATGTGCAT GTCCATGAGT TATGTACTTA
1801 TGTGTATTAT CTACGTGTTT TCCATACATA CATATATAAA TCTTATATTA CTTTATGGTT
1861 TTGTCGTAAA AGTTACGTAG CATCAATAAT TGTGATTCGT TGCCATAAAC AGACAACTAC
1921 TTGTAACGGT ATAAGGCTTG GCTCTCATGA TAAAATGATA ACCCTTTTTT TCGTCGGAGA
1981 CAGACAAACG CATAAATCAC TAATTCTAAA CCGAGATGAT TGTCGATTTG TTTGCCATAT
2041 GCATAACTAG AATCTTCAGT TAATATTAAT TTTTGGTGTT TTCGATCGAA TAAAAAAAAA
2101 TAAACATTGC AATATTTCGA AATTTGTCGT CTTTCTTTTT ATAACACTAG CAAGTGAGAG
2161 GCTGAGAGCC AAGTGGAACG TTAAAAGACA ACATTAGATA TATATTATAT ATTGCTAAAT
2221 CTGTATTATT TCTTTTTAAC ATACGCAACT TTTGATTGGA AATCGTAAGT CGAAGGAAGG
2281 GCCTCGATTT ATGACGTACG CTTCGTGCCA AACAATTCCT CTTTAGTTGA GGCCGGGGAA
2341 GACGAGTTTG TTGTTAGTGA GCGATGCCAT GGCATCAATG AACTCCCAAA GGCCATATGT
2401 TCTGTTAAAG GCTATTTTAG TTTTTAATTT TGTTCTGATT AACTCAACCA CATGTTAAAT
2461 CAGATATCAT GTTTAACGAT ATTAGTTTTT AAACAAAATG ATTATCATAA AACGAAATTT
2521 ATGATGAAAC ATATATAATC TTTATCTTGT TTAAGTATGT AATTCTTGTA TGTTTGTATA
2581 CGCCTTGCAA ATCAAAAAAC TAGTTGCTGT TTTTGGCATT GTGTTTACGA AATATTTATT
2641 AATATTTTAA ATTAATTAAA TAAATGTTCT TATTTCTCAA CAGGAAACAA TATGTATTTT
2701 CTTTCTTTAT AAAATTACAA TGAATTATTT GTTTTAAGCT GTCTATTTCC AAGAAACAAA
2761 ACACAAAAAT GATAAATTTA TAATAGTCAC ATAACCTGTC TTACAAAAAA AAAAAGAAAA
2821 GCGAAAAGAA ATGTGACAAC AGAAAATGGT TTTGATAACC AATAAGAATC GACAAAAAAA
2881 AAACTTACTC CACATATACT CTTCTCTTCA CTCTTCAGTC TTCACTATTC AGTCTCGAGT
2941 ATTTCACCGA TCTATAAATA CACTCCTCTT CTCCACCAAA AGTATCATAT CATACCAAAA
3001 ACATAAAGCC AAAATATAAA CACATAAGCC TTTTA
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